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Is Corporate Governance Ineffective in Emerging Markets?

Abstract

I test whether corporate governance is ineffective in emerging markets by estimating the link between CEO turnover and firm performance for over 1,200 firms in eight emerging markets. While previous papers on corporate governance in emerging markets have studied corporate governance *mechanisms*, such as concentrated ownership, I study a corporate governance *outcome*: are poorly performing managers replaced? Others have answered this question in the affirmative for the United States and other developed countries. This paper is the first to address this question for emerging markets. I use an innovative econometric technique to deal with the limited data available for empirical research on emerging markets.

I find two main results. First, CEOs of emerging market firms are more likely to lose their jobs when their firm's performance is poor, suggesting that corporate governance is not ineffective in emerging markets. The magnitude of the relationship is surprisingly similar to what Kaplan (1994a) found for the United States. Second, for the subset of firms with a large domestic shareholder, there is no link between CEO turnover and firm performance. For this subset of emerging market firms, corporate governance appears to be ineffective.

Is corporate governance ineffective in emerging markets? On both sides of the question, anecdotes abound. On one side: Fotex, a Hungarian firm, issued convertible bonds on favorable terms to its large shareholder, who is also its CEO. Minority shareholders' stakes were diluted. On the other side: the CEO of Enersis, a Chilean utility, was forced to resign in 1997 after it was revealed that a planned merger of Enersis with a Spanish utility involved $500 million in payments to the CEO and 13 of his closest colleagues.[1] Since dueling anecdotes are unlikely to convince a sceptic one way or the other, this paper uses cross-sectional data on over 1,200 emerging market firms to investigate whether corporate governance is ineffective in emerging markets.

This paper aims to expand our knowledge of how well the financial systems in emerging markets work. One of the paper's goals is to help investors in emerging markets better understand the risks they face. Investment by developed country investors in emerging markets has grown dramatically in the 1990s. Emerging markets have liberalized, allowing foreign investors greater access. Emerging equity markets have been shown to offer high expected returns and low correlations with each other and with developed equity markets, making them attractive to global investors seeking diversification (Divecha, Drach, and Stefek 1992; Harvey 1995).

Investments have flowed into emerging markets even though emerging markets have not been studied as intensively as developed markets. Corporate governance is no exception. As Shleifer and Vishny (1997) point out in their survey, there has been only a little research done on corporate governance outside the United States, apart from a few developed countries such as

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[1]Sources for the anecdotes: "Minority shareholders lag in emerging markets," *The Wall Street Journal*, September 13, 1999, p. A39A; "Fall from grace," *Institutional Investor*, February 1998, p. 63.

Japan and Germany. (I discuss some of this research below.) But there is almost no empirical evidence directly comparing the quality of corporate governance in emerging markets and developed markets.[2]

A few studies have examined corporate governance in emerging markets, although none has estimated the link between CEO turnover and corporate performance that is the focus of this paper. Researchers have studied the implications of the concentrated corporate ownership that is common in many emerging and developed markets. La Porta, Lopez-de-Silanes, and Shleifer (1999) study 27 countries and conclude that "the principal agency problem in large corporations around the world is that of restricting expropriation of minority shareholders by the controlling shareholders." Claessens, Djankov, Fan and Lang (1999) identify the ownership structure of firms in nine East Asian countries, including four of the emerging markets studied in this paper. They conclude that the main corporate governance problem in these countries is the expropriation of minority shareholders by controlling shareholders. Lins (2000) relates ownership structure to firm value across 22 emerging markets. The authors of all three papers carefully trace through pyramidal shareholding structures to identify a firm's ultimate owners.

Three recent papers study corporate governance in India. Khanna and Palepu (1999) and Sarkar and Sarkar (1998) examine how the identity of the immediate owners of Indian firms is correlated with the firms' valuation, as measured by a market-to-book ratio. Chhibber and Majumdar (1999) examine how ownership characteristics of Indian firms affect profitability. Because these authors look at immediate ownership, not ultimate ownership, it is hard to compare their results with the three papers mentioned above. A common result across the three Indian

[2]See Chung and Kim (1999) on Korea for one example.

papers is that high foreign ownership has beneficial effects (either on market valuation or profitability).

Claessens and Djankov (1999a, 1999b) study corporate governance in transition economies. Using data on recently privatized firms in the Czech Republic, they find that firms with concentrated ownership, foreign ownership, and ownership by non-bank investment funds are more profitable and have higher labor productivity. They also find that CEO turnover is followed by improvement in profitability and labor productivity. These effects are stronger when the new CEO is appointed by a private owner, rather than the government.

Most of these papers focus on concentrated ownership, which can be described as a corporate governance *mechanism*. Corporate governance mechanisms are ways to deal with the agency problems between managers and shareholders and between controlling shareholders and minority shareholders. Corporate governance mechanisms aim to ensure that minority shareholders' rights are not usurped, managers' actions are monitored, and poorly performing managers are replaced. Studies of corporate governance mechanisms for U.S. firms are common and look at a wider range of mechanisms than the nascent literature on emerging markets has yet taken on. Boards of directors, institutional investor activism, hostile takeovers, and executive compensation schemes are common topics.[3]

However, inferring the effect of corporate governance mechanisms on the performance of a corporate governance "system" is problematic. The various mechanisms can substitute for one another. For example, La Porta, Lopes-de-Silanes, Shleifer and Vishny (1998) show that in

[3]See Shleifer and Vishny's (1997) survey.

countries where the legal system does not do a good job of protecting shareholders' rights, concentrated ownership is more prevalent.

Because I am interested in evaluating the performance of corporate governance in emerging markets, I focus on corporate governance *outcomes* rather than corporate governance *mechanisms*. Specifically, I look at the relationship between CEO turnover and corporate performance. A necessary condition for an effective corporate governance system is that poorly performing managers are replaced, as Macey (1997) suggests. I assess whether this condition holds in emerging markets.

Such an approach was taken by Kaplan (1994a, 1994b, 1997), studying corporate governance in the U.S., Germany, and Japan. Some researchers had argued that one or the other corporate governance system was superior. Kaplan showed that firms in the three countries exhibit broadly similar relationships between CEO turnover and corporate performance. Poor performance made a manager more likely to be replaced in all three. Along one important dimension, the corporate governance outcomes in different countries were similar, although the corporate governance mechanisms in each country were and are quite different.[4]

While a relationship between CEO turnover and corporate performance may be a necessary feature of a corporate governance system that "works," it is not sufficient. Other factors need to be in place for a corporate governance system to work well. For example, a market for corporate control is needed to deal with times when everyday monitoring is not adequate. Looking for a relationship between CEO turnover and corporate performance tests whether corporate

[4]A number of papers study the relationship between CEO turnover and corporate performance in a single country. For the U.S., recent examples are Denis, Denis and Sarin (1997) and Parrino (1997). For Japan, see Kang and Shivdasani (1995) and Abe (1997).

governance is *in*effective. Such a relationship, on its own, cannot prove the contrary, that corporate governance is effective.

Data issues

When undertaking a research project on emerging market corporate governance, availability and quality of data is always an issue. I use data from Worldscope. Worldscope provides firm-level financial information on publicly-traded firms in 53 developed and emerging markets (as of July 1999). I use data on non-financial firms in eight emerging markets that had a large number of firms present in Worldscope (over 1994-98): Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan, and Thailand. These eight markets make up 66 percent of the market capitalization of the MSCI Emerging Markets Index.[5] Because of the limited history available, I pool firms from all eight countries into a single dataset. The dataset contains all the firm-years covered by Worldscope for firms in these countries where data is available on CEO turnover and at least one of the measures of firm performance I use below. On average, firms in the regression sample make up about 40 percent of the market capitalization of their respective markets.

The regression sample covers 1993 to 1997. Most of the data comes from the October 1998 Worldscope CD-ROM. In nearly all cases, firms' financial statements for the 1997 fiscal year had been added to Worldscope in time to make it on the October 1998 CD-ROM, so the data sample ends in 1997. The earliest data I have is for the 1992 or 1993 fiscal year, depending on what data was available to Worldscope when they began coverage of emerging markets in 1994. Since measuring CEO turnover requires two consecutive years of data, the regression sample

[5]Market capitalization data are from Morgan Stanley Capital International (1998, p. 27) and were measured on September 30, 1997.

contains data from 1993 to 1997. Because Worldscope has expanded their coverage of emerging markets over time, most of the observations come from 1995, 1996 and 1997.

Throughout the paper I refer to the firm's top corporate officer as the "CEO," but the title used by a firm's top manager can differ both across countries and within a country. This makes it hard to identify the top corporate officer. While Worldscope lists several officers for each firm, it does not list them in order of importance. Even worse, firms within a country do not consistently use the same title to identify their top manager.

To identify a firm's top manager, I consulted printed sources and country analysts and made a list for each country of titles ranked by importance. For each firm, if there was a manager with title #1 on that country's list, I identified that manager as "CEO". If no manager had title #1, I looked for a manager with title #2 and identified that manager as "CEO", and so on down the list.[6] The lists appear in Table 1. Undoubtedly some of the CEOs are misidentified in the dataset. This will introduce error into the CEO turnover variable, but unless the misidentification is correlated with firm performance, it should not bias the estimated coefficients.

The firm's top corporate officers are identified in Worldscope, but only for the most recent fiscal year. No historical data on officers is present in the database. To obtain historical data on officers, I asked Worldscope to provide me with old CD-ROMs from 1994-1997, which they kindly did. Using the Worldscope CD-ROMs for October of each year from 1994 to 1998, each firm's CEO at the end of each fiscal year was identified as described above and a 0/1 indicator variable for CEO turnover was coded by hand.

[6]If two managers had the same title, indicating shared responsibility, I dropped that firm-year from the sample to avoid dealing with split turnover.

I do not know anything else about the CEO apart from his or her name. I do not have data on characteristics that will affect the probability of CEO turnover such as the CEO's age and tenure at the firm. It is plausible to argue that CEO characteristics such as age and tenure are uncorrelated with firm performance. If so, their absence will worsen the fit of the regression models, making it harder to find any effect of firm performance on CEO turnover, but will not bias the coefficient on firm performance.

I also do not know if the CEO's departure was voluntary or forced. Other papers that have estimated the relationship between CEO turnover and corporate performance in the U.S. (e.g., Weisbach 1988, Denis and Denis 1995, and Parrino 1997) and in Japan (Kang and Shivdasani 1995 and Abe 1997) have been able to gather additional information on the CEO's turnover at a low cost from country-specific sources (e.g., the Wall Street Journal or Nihon Keizai Shimbun newspapers). Because my data span eight emerging market countries where financial market news services are less well developed, the cost of gathering this type of information for me would be prohibitively high. In the next section of the paper, I describe the econometric methodology I use to compensate for the limited financial market information available for emerging markets.

Summary statistics on CEO turnover in emerging markets are presented in Table 2. The mean rate of CEO turnover in my dataset is 12.2 percent. This corresponds to an expected CEO tenure of 8.2 years. Across the eight countries in my dataset, the mean rate of CEO turnover during the time period for which I have data ranges from 5.5 percent (Taiwan) to 17.7 percent (Malaysia). These correspond to expected CEO tenure of 18 years and 5.6 years, respectively. For the five years in my dataset (1993-97), the mean rate of CEO turnover was lower in the first two years, where I have relatively few observations.

I do not know the causes of these differences in expected CEO tenure across countries and over time. Some possible explanations are the short time span of my dataset combined with asymmetric macroeconomic shocks across countries, structural economic differences across countries, or other factors. What will be important for the regressions that follow is not the mean CEO tenure but the sensitivity of CEO turnover to firm performance. In the regressions, I will control for the differences in mean CEO tenure across countries and years apparent in Table 2 with dummy variables for country and year.

I use four measures of firm performance common in the literature: earnings scaled by assets, the change in earnings scaled by lagged assets, stock market return, and growth in sales. The measure of earnings is EBIT, earnings before interest and taxes. Stock market return is total return on the firm's equity in excess of the return on a market index for the firm's country. All four performance measures are measured over the firm's fiscal year, as is CEO turnover.[7] Table 3 contains summary statistics on the four performance measures.

All but the stock market return rely on accounting data to some extent, and accounting data in emerging markets have flaws. While Worldscope claims to standardize and clean the firm-level financial data when adding it to their database, problems of non-comparable accounting standards across countries will always be present. I hope I have minimized their effect by choosing relatively simple measures of firm performance that do not demand too much from the accounting data. If corporate performance has random mismeasurement added in due to poor accounting standards, it should bias the coefficient on performance toward zero, making it harder to find an effect of performance on CEO turnover.

[7]In an earlier draft, I had tried adding lagged performance to the regressions. It was always statistically insignificant.

To get a sense of the quality of accounting standards in the eight emerging market countries in the sample, I consulted the rating of accounting standards constructed by the Center for International Financial Analysis and Research which was used by La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998). A country's accounting standards are rated by examining the extent of disclosures made in the financial statements of a few listed firms. The mean rating across the eight emerging market countries is 61, identical to the mean for all 41 countries reported in La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998).[8] Eight of the 41 countries whose ratings were reported by La Porta, Lopez-de-Silanes, Shleifer and Vishny (1998) have lower ratings than the lowest-rated country, Chile. For comparison, the rating for the United States is 71 and for Japan is 65.

Econometric methodology

I use an innovative econometric technique to partially compensate for the inadequacies of emerging market data. Because of the limited financial information news services available in emerging markets, I am not able to separately identify forced and unforced CEO turnover. Other papers that estimate the link between CEO turnover and firm performance in the U.S. and Japan (e.g., Kaplan 1994a, Weisbach 1988, Denis and Denis 1995, Parrino 1997, Kang and Shivdasani 1995 and Abe 1997) exclude some categories of unforced CEO turnover (e.g., deaths, retirements). Obviously, the link between *forced* CEO turnover and firm performance is what is relevant to the effectiveness of a corporate governance system, the topic addressed by this paper.

[8]The ratings, taken from Table 5 of La Porta, Lopes-de-Silanes, Shleifer and Vishny (1998), are Brazil 54, Chile 52, India 57, Korea 62, Malaysia 76, Mexico 60, Taiwan 65, Thailand 64.

The most common model estimated in the literature is a logit model:

$$\mathbf{Pr\{CEO\ turnover \mid no\ unforced\ turnover\} = F(}\boldsymbol{x}'\beta\mathbf{)}$$

where $\boldsymbol{x}$ is a vector that includes a constant term and a measure of firm performance and $F(\cdot)$ is the logistic function $F(a) = e^a/(1+e^a)$. As is clear from the conditional expectation on the left-hand side of the equation, this model should be estimated on data from which unforced turnover events have been discarded.

I use an innovative econometric technique that allows me to compensate for the fact that I cannot separately identify forced and unforced turnover.[9] Because there are exactly two types of turnover, forced and unforced, the following must hold:

$$\mathbf{Pr\{turnover\} = Pr\{unforced\ turnover\} + Pr\{forced\ turnover\}}$$

Use the definition of a conditional expectation to write:

$$\mathbf{Pr\{forced\ turnover\} = Pr\{turnover \mid no\ unforced\ turnover\} \times Pr\{no\ unforced\ turnover\}}$$

Combine the two equations:

$$\mathbf{Pr\{turnover\} = Pr\{unforced\ turnover\} +}$$

$$\mathbf{(1 - Pr\{unforced\ turnover\}) \times Pr\{turnover \mid no\ unforced\ turnover\}}$$

The last term is the dependent variable of the logit model commonly estimated in the literature. I will model unforced turnover as also following a logistic equation:

$$\mathbf{Pr\{unforced\ turnover\} = F(}\boldsymbol{z}'\alpha\mathbf{)}$$

[9]The model I develop is a generalization of the model developed by Hausman, Abrevaya, and Scott-Morton (1998) to correct for misclassification of a discrete dependent variable.

where ***z*** is a vector of characteristics affecting unforced turnover. In all the regressions in this paper, ***z*** contains year and country dummy variables. The complete model, called a "modified logit model" in the rest of the paper, is

$$\mathbf{Pr\{turnover\} = F(z'\alpha) + (1\text{-}F(z'\alpha)) \times F(x'\beta)}$$

Note that in order for the coefficients α and β to be identified, the vectors ***x*** and ***z*** cannot contain any common variables.

I estimate the modified logit model by the method of maximum likelihood. The log likelihood function is

$$LL = \sum_{i=1}^{N} \{y_i(F(z_i'\alpha) + [1 - F(z_i'\alpha)]F(x_i'\beta)) + (1 - y_i)(1 - F(z_i'\alpha) - [1 - F(z_i'\alpha)]F(x_i'\beta))\}$$

where *i* indexes firm-years, and y_i equals one if there is CEO turnover and zero if no turnover. To estimate α and β, I use a modified Newton-Raphson maximization routine that employs analytic first and second derivatives.[10] Unlike a standard logit model, the modified logit model does not have a log likelihood that is guaranteed to be concave. If the numerical maximization terminates at parameter values for which the log likelihood is not concave, the resulting parameter estimates may not be a true maximum and the standard errors of some parameter estimates will be undefined.[11] Although this did not happen for any of the modified logit regressions presented in

[10]A copy of the maximum likelihood routine is available upon request.

[11]I did some experimentation with different starting values for the modified logit regressions reported in Tables 4-7 but did not find any cases where the maximization routine found a local, instead of a global, maximum. I tried a fifth performance measure, a dummy variable for positive earnings, but the modified logit regression did not converge to a global maximum.

Tables 4-7, it did happen for some robustness checks where additional parameters were added to the model. In those cases, I will report results from a standard logit model of the form:

$$\mathbf{Pr\{CEO\ turnover\} = F(}z'\alpha + x'\beta\mathbf{)}$$

instead. Although the standard logit model is misspecified, it could pick up the effects that the robustness check is looking for, if they are present in the modified logit model.

Regression results

I estimate the modified logit regression described above for each of the four firm performance measures individually. Results are summarized in Table 4. For all four performance measures, the β coefficient is negative, indicating that poor performance is associated with higher CEO turnover. For the two earnings-based measures and for sales growth, the link is statistically significantly different from zero (using a 5 percent one-tailed test). The link between stock market return and CEO turnover is not significant.

Figure 1 translates the regression results into graphs of the relationship between firm performance and the predicted probability of forced CEO turnover, conditional on no unforced turnover. In the notation introduced in the previous section, this probability is $F(x'\beta)$. Along the bottom of each graph, the univariate distribution of the performance variable is summarized with a box-and-whiskers plot.

The change in the predicted probability of forced CEO turnover for any change in performance can be read off the appropriate graph. For example, using the top left graph, for a firm that falls from the median of earnings/assets to the 5th percentile, the probability of forced CEO turnover would rise from 4.8 percent to 6.3 percent, a 31% increase.

There is likely an economically rational reason why the stock market return is less significantly correlated with CEO turnover: the relative inefficiency and illiquidity of emerging market equity markets. Harvey (1995) shows that the first-order autocorrelation of monthly equity index returns are positive and significant in many emerging markets, in contrast to developed markets, suggesting that emerging equity markets are less efficient. Demirgüç-Kunt and Levine (1995) present evidence that emerging equity markets are less liquid than developed-country equity markets. If the stock market return is a noisier signal of firm performance in emerging markets, it would be logical for outsiders to rely on it less when judging a CEO's performance.

The regressions passed several robustness checks, to outliers, nonlinearities, the choice of which emerging markets to include in the data sample, and the inclusion of firm size effects. To look for influential outliers, I computed the "influence statistics" of Pregibon (1981). These statistics are computed for a standard logit model. Any observation whose deletion from the sample would change the regression coefficient on a performance variable by more than one-half of the coefficient's standard error was flagged for investigation. Four observations were flagged by this test; upon investigation two were revealed to be data errors and were dropped from the sample. The other two were not data errors and were left in. One had a large jump in earnings and a change in CEO. The other had very low earnings and no change in CEO. Omitting them would strengthen the estimated effect of performance on CEO turnover.[12]

To check for nonlinearities in the relationship between performance and CEO turnover, I estimated a standard logit regression allowing the effect of performance on CEO turnover to be

[12]I chose not to omit these two outliers because the extreme performance that led them to be outliers was not a data error.

piecewise linear.[13] Over several different specifications of the piecewise linearity with several different choices for the "knots," the nonlinearity was never statistically significant.

To see if the results were unduly influenced by the choice of which emerging markets to include, I dropped all firms for one emerging market at a time and re-estimated the modified logit regression on the remaining seven emerging markets. Earnings/assets and the change in earnings/assets had the most robust associations with CEO turnover, as their t-statistics were less than –1.8 for all eight sets of seven emerging markets. The t-statistics for sales growth were always less than –1.5. The t-statistics for stock market return, which was not significant in the regression with all eight emerging markets, ranged from –.4 to –2.2. This last result suggests that the link between CEO turnover and shock market return may be stronger in some emerging markets than others. The model I estimated for stock market return in Table 4, which pools data across all eight emerging markets, may be misspecified.

An alternative explanation for the link between CEO turnover and firm performance is that both are correlated with firm size, which is omitted from the regression. If this were true, the regression results would merely reflect an omitted variable bias, not a true causal relationship. To investigate this alternative, I divide firms into four size quartiles according to their total assets measured in U.S. dollars at the end of the fiscal year.

Firm size is correlated with CEO turnover. The mean rate of CEO turnover among firms in the smallest quartile is .082, compared with .136 among the remaining firms.[14] But, firm size is not robustly correlated with firm performance. Of the four pairwise correlations between the natural

[13]For this specification, the modified logit model did not converge.

[14]There were no significant differences in CEO turnover rates among the other three size quartiles.

log of assets and the individual performance measures, one is negative, one is positive, and two are not statistically different from zero.[15] The lack of any robust association between firm size and performance suggests that omitted variable bias is not why poor firm performance is associated with higher CEO turnover.[16]

Comparing CEO turnover in emerging markets and in the United States

The probability of CEO turnover in emerging markets rises with poor firm performance. The estimated effects do not seem overwhelmingly large, although statistically they are not zero. How do they compare with what has been found for the United States? Kaplan (1994) used many of the same measures of firm performance. Using the results reported in Table 4 and Kaplan's reported regression coefficients, we can directly compare the magnitude of the effect of firm performance on CEO turnover for emerging markets with the effect in Kaplan's sample of large U.S. firms.

Figure 2 shows how the predicted probability of CEO turnover varies with three of the firm performance measures used in this study and in Kaplan (1994a). (Kaplan (1994a) did not use earnings/assets.) These graphs show the probability of all CEO turnover, forced and unforced, to be able to compare with Kaplan (1994a) whose sample included both forced and unforced

[15]The correlation coefficients are negative for earnings/assets ($\rho=-.10$), positive for sales growth ($\rho=.11$), and not statistically different from zero for the change in earnings/assets and stock market return. The performance measures are all positively correlated with one another.

[16]The modified logit model had a hard time converging for models with the firm size quartile interacted with firm performance. In a standard logit model, interaction terms between the performance measures and the size quartile were not statistically significant.

turnover.[17] The predicted probabilities for emerging markets come directly from the modified logit regressions reported in Table 4. The predicted probabilities for the U.S. come from the regressions reported in Table 2 of Kaplan (1994a). Kaplan used a linear probability model, while I use a modified logit model. This difference in functional form, rather than any economic difference, explains why the emerging markets lines are curved in Figure 2 while the U.S. line is straight.[18]

In the comparisons in Figure 2, the performance measures—change in earnings, stock market return, and sales growth—are scaled by their respective standard deviations. Scaling is desirable when comparing developed and emerging markets because there is much more performance variability in emerging markets. Evaluation of a CEO's performance should be done by comparing it with other CEOs' performances. In an environment of greater variability in firm performance, such as that found in emerging markets, greater absolute change in firm performance would likely be needed to induce monitoring of the CEO.

The top left graph shows that the effect of falling earnings on the probability of CEO turnover looks quite similar in emerging markets and the United States. For stock market return, the

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[17]Kaplan dropped observations where the turnover was due to death, illness, or takeover, but not retirement or other forms of unforced turnover.

[18]Kaplan (1994a) regresses CEO turnover on firm performance variables over two-year periods. His regression coefficients cannot be used directly to predict CEO turnover over one-year period. Let P_i be the probability of CEO turnover over i years and let X_i be firm performance measured over i years, where i=1,2. To link the one- and two-year variables, assume that $P_2 = 2P_1 - (P_1)^2$ and $X_2 = 2X_1$. If Kaplan's regression is written as $P_2 = \alpha + \beta X_2$, then $2P_1 - (P_1)^2 = \alpha + \beta (2X_1)$ or, solving for P_1, $P_1 = 1 - \sqrt{1 - \alpha - 2\beta X_1}$. This relationship is graphed in Figure 2, using the β coefficients reported in Table 2, column 3 of Kaplan (1994a). I ignore Kaplan's coefficients on lagged performance since they were statistically insignificant. The constant term α is chosen so the mean probability of CEO turnover in the U.S. is 10.4 percent, as reported in Kaplan (1994a).

effect is much weaker in emerging markets than in the U.S. (Recall that in Table 4 stock market return did not have a statistically significant relationship with CEO turnover in emerging markets, in contrast to what Kaplan (1994a) found for the U.S.) The effect of sales growth appears to be slightly stronger in the U.S. In sum, with the exception of stock market return, the magnitude of the effect of firm performance on the probability of CEO turnover is remarkably similar in emerging markets and the United States.

Does the identity of large shareholders matter?

The role of large shareholders in corporate governance has been extensively documented in the literature.[19] In theory, the presence of a large shareholder could have a positive or negative effect on the relationship between CEO turnover and firm performance. On the positive side, a large shareholder may have better monitoring incentives and more monitoring influence than a small shareholder. The large shareholder has a larger amount of wealth at stake, creating a better incentive to monitor. A large shareholder also has more ability to influence the firm's decision-making, including the decision to replace the CEO. If having a large shareholder improves monitoring, the relationship between firm performance and CEO turnover should be stronger at firms with a large shareholder. Hoshi, Kashyap and Scharfstein (1990) and Kang and Shivdasani (1995) present evidence suggesting that Japanese banks played such a monitoring role in the 1980s (before financial deregulation reduced their power over borrowing firms).

On the negative side, a large shareholder could have other interests besides shareholder value maximization and could insulate managers from outside pressure to let managers pursue

[19]See La Porta, Lopez-de-Silanes and Shleifer (1999) for a recent example with references.

those other interests. This might be the case if the large shareholder has another relationship with the firm—as a supplier, customer, or manager—and can extract rents from the firm through the other relationship. Or, managers could facilitate direct transfers from minority shareholders to the large shareholder. For example, Chung and Kim (1999) give several stories of large shareholders in Korean companies who bought company assets at a below-market price and resold them for personal profit.

To investigate the role of large shareholders in emerging market corporate governance, I collected data from Worldscope on the identity of a firm's large shareholder(s).[20] A large shareholder is defined as one directly holding at least 20 percent of the firm's equity.[21] I did not trace through indirect ownership chains because of lack of data.

I split the sample into two groups: firms with no large shareholder and firms whose large shareholder is a private domestic entity (e.g., another firm, a family, or an individual).[22] All other

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[20]Like the data on CEO turnover, the ownership data had to be coded by hand from the old Worldscope CD-ROMs because the Worldscope database does not retain historical data on ownership. Worldscope records the identity of shareholders holding at least 5 percent of the firm's equity. The Worldscope data on ownership may be of a lower quality than the data on CEO turnover and firm performance since the latter are more likely to be subject to mandatory reporting requirements for exchange-listed firms.

[21]La Porta, Lopez-de-Silanes and Shleifer (1999) use 20 percent as the cutoff for their definition of a controlling shareholder. They argue that 20 percent of the votes gives effective control over management's decision-making. Claessens, Djankov and Lang (1999) compute various cutoffs for their definition of a large shareholder, but their discussion focuses on the results with 20 percent as the cutoff to be comparable with previous literature. Both papers consider indirect as well as direct shareholdings, while I only use direct shareholding data.

[22]I combine firms whose large shareholder is another domestic firm with firms whose large shareholder is a domestic individual or family. Claessens, Djankov and Lang (1999) show that the typical family ownership is achieved through intermediate ownership by corporate entities or foundations controlled by the family. Because my ownership data only reflect direct shareholdings, I cannot distinguish domestic family-controlled firms from other firms with a domestic large shareholder.

firms, including firms whose large shareholder is the government, firms whose large shareholder is foreign, and firms with more than one large shareholder were dropped because there were too few firms in these categories to identify any effect of the shareholder's identity. Of the 2,663 firm-years in the initial regression, 408 firm-years must be dropped due to missing ownership data, 34 because the large shareholder is foreign, 59 because the large shareholder is the government, and 11 because the firm had more than one large shareholder.[23]

Table 5 shows regression results when the effect of earnings/assets on CEO turnover is allowed to vary according to the identity of the firm's large shareholder. At firms with a domestic private large shareholder, there is *no* link between earnings/assets and CEO turnover. For these firms, the link between earnings/assets and CEO turnover is significantly weaker (at the 10% confidence level) when compared to firms with no large shareholder. Similar results obtain when the change in earnings/assets is used as the performance measure (not shown in a table). When stock market return or sales growth is used, the link between CEO turnover and firm performance is still statistically insignificant for the firms with a domestic private large shareholder, but the difference across groups is not statistically significant.[24]

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[23]In a previous version, I included firms with foreign and government large shareholders in the regression and looked for a differential effect of firm performance on CEO turnover for those groups as well. The small number of firm-years in these two groups caused both of the differential effects to be statistically insignificant.

[24]Another firm-specific characteristic that I investigated, besides the identity of the firm's large shareholder, was whether or not the firm was listed on a developed-country stock exchange. Firms listed on a developed-country exchange have chosen to submit to a stricter regulatory and disclosure regime. They may be better monitored than other firms, which might imply a stronger link between firm performance and CEO turnover. Just over 8 percent of the firms in the sample were listed on a developed-country exchange. However, when I allowed the coefficient on firm performance in the modified logit regression to differ for these firms, the difference was not statistically significant.

The discipline felt by corporate managers in response to low earnings appears to be weaker in emerging markets when a firm has a domestic private large shareholder. Other research has also found that large shareholders have, on net, a negative effect on corporate governance in emerging markets. Claessens, Djankov, Fan and Lang (1999) conclude that stock market valuations in nine East Asian countries in 1996 are lower when large shareholders have control rights out of proportion to their cash flow rights, due to pyramiding and cross-shareholdings. The effect is strongest for firms whose ultimate owner is a family.

The result that large shareholders weaken corporate governance in emerging markets is striking because, in other times and places, large shareholders have been found to improve corporate governance. Using data on Japan in the 1980s, Kang and Shivdasani (1995) found that firms whose main bank was also a large shareholder had a stronger relationship between CEO turnover and firm performance, suggesting that main banks could improve monitoring. Using data on U.S. firms in the 1980s, Denis, Denis and Sarin (1997) found that having a large non-managerial shareholder increased the sensitivity of CEO turnover to performance; this result was marginally statistically significant (the p-value of the test was .09).

Does legal origin matter?

La Porta, Lopes-de-Silanes, Shleifer and Vishny (1999) claim that the different degree of legal protection given shareholders and creditors is the single most important factor explaining differences in corporate governance across countries. In other papers, these authors show that concentrated ownership is less common and capital markets are more developed in countries with

stronger legal protection of shareholders and creditors.[25] They also show that the extent of legal protection of shareholders and creditors is largely determined by whether the country's legal system is based on a common law tradition or a civil law tradition.

Although corporate governance mechanisms clearly differ according to legal origin, it is not obvious that corporate governance outcomes must necessarily differ in the same way. On the one hand, strong legal protection of shareholders and concentrated ownership may simply be two different ways to achieve effective corporate governance of firms with publicly-traded equity. According to this argument, the link between CEO turnover and firm performance for publicly-traded firms should not differ across legal origin. On the other hand, the striking differences across countries in the legal protection of shareholders may carry over to corporate governance outcomes. In that case, the link between CEO turnover and firm performance could differ according to legal origin. Investors might be compensated with a higher expected return for investing in countries with poorer corporate governance outcomes.[26]

To investigate this issue in my dataset, I divided the eight emerging markets in my sample into two groups according to legal origin. Three emerging markets (India, Malaysia, Thailand) are in the common law tradition, and the remaining five (Brazil, Chile, Korea, Mexico, Taiwan) are in the civil law tradition. Summary statistics for the civil law and common law subsamples are shown in Table 6. The three common law countries account for 61 percent of the firm-years in the

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[25]See La Porta, Lopes-de-Silanes, Shleifer and Vishny (1997, 1998).

[26]If the link between CEO turnover and firm performance is similar across common and civil law countries, it would only show that corporate governance is not ineffective for firms with public equity. To evaluate the overall performance of the financial system in civil law countries, other factors would be relevant. For example, their relatively weak legal protections for shareholders and creditors lead to smaller debt and equity markets.

sample, reflecting the larger public equity markets in common law countries. The proportion of firm-years with CEO turnover is higher in common law countries.

Table 7 shows regression results allowing the effect of firm performance on CEO turnover to differ according to the origin of the legal system in the firm's home country. The only change from Table 4 is that in Table 7 each performance variable is interacted with dummy variables for civil and common law origin. The coefficients and t-statistics on the interaction terms between legal origin and firm performance are reported in the first two columns of Table 7, and the t-statistics for equality of the two coefficients is reported in the third column.

The three columns of Table 7 lead to three conclusions. The first column suggests that the link between CEO turnover and firm performance is weak in civil law countries. Although the point estimates are all negative, suggesting that weak performance increases the probability of CEO turnover, in only one of four regressions is the link statistically significant. The second column shows that common law countries exhibit a strong link between CEO turnover and performance. For all four performance measures, the coefficients for common law countries are significantly negative. The common law countries appear to have been "driving" the results in Table 4. The third column should be able to show whether the differences between civil and common law countries are genuine or merely due to statistical sampling error. Unfortunately, because the differences between the first two columns are statistically significant for the two earnings-based measures of performance but not significant for the other two, there is no clear evidence either way on this point.

To assess the robustness of these conclusions, I repeated one of the robustness checks performed earlier: dropping one country at a time from the dataset and re-estimating the regressions to see if the conclusions depend on the particular countries that I chose to include in

my sample.[27] In the first column of Table 7, the negative and significant coefficient on the change in earnings becomes zero when firms in one civil law country, Brazil, are dropped from the sample. This reinforces the conclusion that the link between CEO turnover and firm performance is weak or nonexistent in civil law countries. The conclusion from the second column of Table 7, that the link between CEO turnover and firm performance is stronger in common law countries, is robust to dropping one country. The conclusion from the third column, that there is no clear evidence that the differences between civil and common law countries are not statistically significant, is also reinforced by the robustness tests. The t-statistic for the difference in the earnings/assets regression drops below -1 for two of the eight robustness regressions, while the t-statistic for the difference in the Δearnings/assets regression never drops lower than -1.5.

The results on the importance of legal origin are ambiguous. The link between CEO turnover and firm performance appears to be strong for common law countries and weak for civil law countries. However, I do not find that the differences between the civil and common law subsamples to be consistently statistically significant. Also, the lack of statistical significance for civil law countries may simply reflect low power due to the smaller sample size (only 39 percent of the dataset are firm-years in civil law countries). In the only other evidence I know of comparing the CEO turnover-firm performance link across legal origin, Kaplan (1994a, 1994b, 1997) found that the link between CEO turnover and firm performance was similar in the United States, a common law country, and Germany and Japan, two civil law countries. Unfortunately, I cannot confirm or reject that this result extends to emerging market countries.

[27]Out of 32 robustness regressions (dropping one of eight countries for each of four performance measures), six failed to converge to a global maximum.

Conclusions

In a sample of over 1,200 firms across eight emerging markets, CEOs of poorly performing firms are more likely to lose their jobs than CEOs of well-performing firms. Along this dimension, corporate governance in emerging markets is not ineffective. Measures of performance based on earnings have the strongest association with CEO turnover, while measures based on stock market returns have a weaker association with CEO turnover. The relative unimportance of stock market returns may be unsurprising, given the rudimentary state of development of domestic equity markets in many emerging markets.

However, at emerging market firms with a large domestic shareholder, CEOs of poorly performing firms are *not* more likely to lose their jobs. The presence of a domestic firm as a large shareholder appears to negate the link between poor performance and CEO turnover. This evidence is consistent with other research suggesting that minority investors in emerging market firms controlled by a large shareholder should be aware that managers may favor the large shareholder at the expense of minority shareholders. Large shareholders may evaluate a CEO's performance based not on the CEO's ability to run the firm profitably but on the CEO's ability to maximize the well-being of the large shareholder.

This paper has studied corporate governance in emerging markets by examining non-financial firms in eight of the largest emerging markets. Two caveats related to the choice of firms are in order. First, by choosing the emerging markets to work with based on data availability, a bias may have been introduced into the results. These eight markets may have the most data available because they liberalized earliest, simultaneously raising their profile with global

investors, improving their corporate governance, and increasing the number of listed firms.[28] It would be dangerous to extrapolate these results to so-called "frontier" markets that are still in the early stages of liberalization.

Second, by focusing on the governance of non-financial firms, I give up the possibility of saying anything about bank governance. Bank governance in emerging markets has also been criticized in the wake of the recent financial crisis. Of course, bank governance is heavily influenced by government regulation, which is why it is usually studied separately from corporate governance of non-financial firms.

It is important to keep in mind that these findings do not imply that corporate governance in emerging markets is perfect. Indeed, the results I present may contain some seeds of concern for the future of emerging market corporate governance. The importance of earnings-based measures of performance for emerging markets, compared to stock-market-based measures, is similar to what Kaplan (1994a) found for Japan. Events in the 1990s suggest that, while the link between CEO turnover and corporate performance in Japan was broadly similar to that in the U.S. in the 1980s, the Japanese corporate governance system may not be similar to the U.S. system along other dimensions, such as preventing firms in declining industries from overinvesting. Gibson (2000) suggests that, while Japan's corporate governance system worked well in Japan's high growth period of the 1960s and 1970s, its flaws have contributed to the poor performance of the Japanese economy in the 1990s. As emerging markets continue to grow and become more integrated into the global economy, more research will be needed to see if their corporate governance systems also mature.

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[28]This would be consistent with Stulz (1999), who argues that corporate governance should improve after a liberalization as domestic firms get more scrutiny from foreign investors.

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Table 1. Titles used to identify the top manager

Brazil
CEO
President
Managing Director/Superintendent
Chairman

Chile
Chief Executive
General Manager - CEO
Managing Director - CEO
President - Chairman, Executive Board
Chairman - Board

India
CEO
Managing Director
Chairman
President
General Manager

Korea
CEO
President
Chairman
Representative Director
Senior Managing Director

Malaysia
CEO
President
Chief Executive
Managing Director
Chairman

Mexico
CEO
President
Managing Director
General Director
Chairman
General Manager

Taiwan
Chief Executive
President
General Manager
Chairman
Director

Thailand
CEO
Chairman of Executive Board
Chairman
President
Managing Director
Chairman, Board of Directors

Table 2. Summary statistics on CEO turnover for firms in emerging markets

Data cover all non-financial firms present in the Worldscope database from Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan, and Thailand as of October 1998. CEO turnover refers to a change in the identity of the firm's CEO (or equivalent top manager, as discussed in the text) from the previous fiscal year. The firm's CEO is identified in the Worldscope database. Firms with missing data on CEO turnover were dropped from the analysis.

	Number of firms	Number of firm-years	Fraction of firm-years with CEO turnover
A. Entire Sample	1240	2747	0.122
B. By country			
Brazil	120	293	0.075
Chile	60	150	0.167
India	263	651	0.103
Korea	146	284	0.134
Malaysia	285	605	0.177
Mexico	75	174	0.098
Taiwan	99	165	0.055
Thailand	192	425	0.120
C. By year			
1993		100	0.030
1994		332	0.069
1995		725	0.127
1996		945	0.126
1997		645	0.154

Table 3. Summary statistics on performance measures

Data cover all non-financial firms present in the Worldscope database from Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan, and Thailand as of October 1998. All variables are measured in local currency. Earnings/Assets is EBIT (earnings before interest and taxes) for the fiscal year divided by end-of-fiscal year assets. ΔEarnings/Assets is EBIT less last year's EBIT, divided by end-of-last-fiscal-year's assets. Stock market return is total return, from Worldscope, less the continuously compounded return on the MSCI country index for the firm's country. Both returns are measured over the firm's fiscal year. Sales growth is the log difference in sales.

	Median	Mean	Standard Deviation	Number of firm-years
Earnings/Assets	.081	.086	.094	2663
ΔEarnings/Assets	.011	.022	.17	2470
Stock market return	-.045	.037	.61	2369
Sales growth	.14	.19	.43	2553

Table 4. Modified logit regressions of CEO turnover on a single firm performance measure

Results from four modified logit regressions of CEO turnover on four different firm performance measures for the pooled sample from all eight emerging market countries. The modified logit regression is

$$\mathbf{Pr\{CEO\ turnover\} = F(}\boldsymbol{z}'\alpha\mathbf{) + [1 - F(}\boldsymbol{z}'\alpha\mathbf{)]\ F(}\beta_0 + \beta\,\boldsymbol{x}\mathbf{)}$$

where $F(\cdot)$ is the logistic function, $F(a) = e^a/(1+e^a)$ and x is one of the four measures of firm performance. The $\boldsymbol{z}$ vector includes year and country dummies whose coefficients are not reported. The reported t-statistics are asymptotic. The pseudo R^2 is defined as $1 - L/L_0$, where L is the modified logit regression's log-likelihood and L_0 is the log-likelihood of a logit regression whose only explanatory variable is a constant. The number of firm-years varies across the four regressions because of missing data. The critical value for a 5% one-tailed t-test is 1.65.

Performance measure	β coefficient (t-statistic)	Pseudo R^2	Number of firm-years
Earnings/Assets	-2.7 (-2.7)	0.029	2663
ΔEarnings/Assets	-3.3 (-2.6)	0.025	2470
Stock market return	-.81 (-0.2)	0.031	2369
Sales growth	-2.1 (-2.0)	0.029	2553

Table 5. The effect of firm ownership on the link between CEO turnover and firm performance

Results of a modified logit regression of CEO turnover on earnings/assets, allowing the effect of earnings/assets to differ according to the identity of the firm's large shareholder. A large shareholder is defined as owning more than 20 percent of the firm's equity. In addition to a single performance measure and that performance measure interacted with an ownership dummy, the ***x*** vector in each regression includes a constant term whose coefficient is not reported; the ***z*** vector includes year and country dummies whose coefficients are not reported. The reported t-statistics are asymptotic. The total number of firm-years in the regression is 2151. The regression's pseudo R^2 is 0.024.

	β coefficient on Earnings/Assets (t-statistic)	Number of firm-years	t-statistic for test of equality with "No large shareholder"
No large shareholder	-3.1 (-2.3)	1480	—
Domestic private large shareholder	.39 (0.2)	671	1.7

Table 6. Summary statistics on CEO turnover and firm performance by legal origin

Data cover all non-financial firms present in the Worldscope database from Brazil, Chile, India, Korea, Malaysia, Mexico, Taiwan, and Thailand as of October 1998. Performance variables are defined in the notes to Table 3. Each country's legal origin is classified as civil law or common law following La Porta, Lopes-de-Silanes, Shleifer and Vishny (1997). Civil law countries are Brazil, Chile, Korea, Mexico, Taiwan. Common law countries are India, Malaysia, Thailand. Equality of means across legal origin is tested with a two-tailed t-test assuming unequal variances. Equality of the proportion of positive earnings and equality of the proportion of firm-years with CEO turnover are tested with Fisher's exact test. Equality of medians is tested with a Wilcoxon rank-sum test.

	Civil law countries	Common law countries	p-value for test of equality
Number of firm-years	1066	1681	
Fraction of firm-years with CEO turnover	.104	.134	.02
<u>Means of performance variables</u>			
Earnings/Assets	.071	.095	<.01
ΔEarnings/Assets	.036	.014	<.01
Stock market return	.004	.059	.04
Sales growth	.23	.16	<.01
<u>Medians of performance variables</u>			
Earnings/Assets	.072	.089	<.01
ΔEarnings/Assets	.011	.011	.47
Stock market return	-.063	-.032	<.01
Sales growth	.14	.13	<.01

Table 7. The effect of legal origin on the link between CEO turnover and firm performance

Results of four modified logit regressions of CEO turnover on four different firm performance measures, allowing the effect of performance to differ according to the legal origin of the firm's country. In addition to a single performance measure and that performance measure interacted with a legal origin dummy variable, the ***x*** vector includes a constant term whose coefficient is not reported; the ***z*** vector includes year and country dummies whose coefficients are not reported. The reported t-statistics are asymptotic. The number of firm-years in each regression is the same as reported in Table 4.

	β coefficient (t-statistic)		t-statistic for test of equality across legal origin
	Civil law countries	Common law countries	
Earnings/Assets	-1.1 (-0.9)	-3.9 (-3.5)	-1.7
ΔEarnings/Assets	-1.5 (-1.8)	-6.1 (-2.6)	-1.9
Stock market return	-.24 (-0.4)	-.66 (-1.6)	-0.6
Sales growth	-1.6 (-0.9)	-2.1 (-2.1)	-0.4

Figure 1. Predicted probability of CEO turnover as a function of firm performance

The predictions are based on the regressions shown in Table 4. The predictions are made setting the other independent variables in the regression—the dummy variables for year, country, and industry—to their means in the regression sample. The box-and-whiskers plot above the horizontal axis shows the empirical distribution of that performance variable in the regression sample. The box is drawn from the 25th percentile to the 75th percentile, with the median shown as a vertical line through the box. The "whiskers" extend out from the box to the 5th and 95th percentiles.

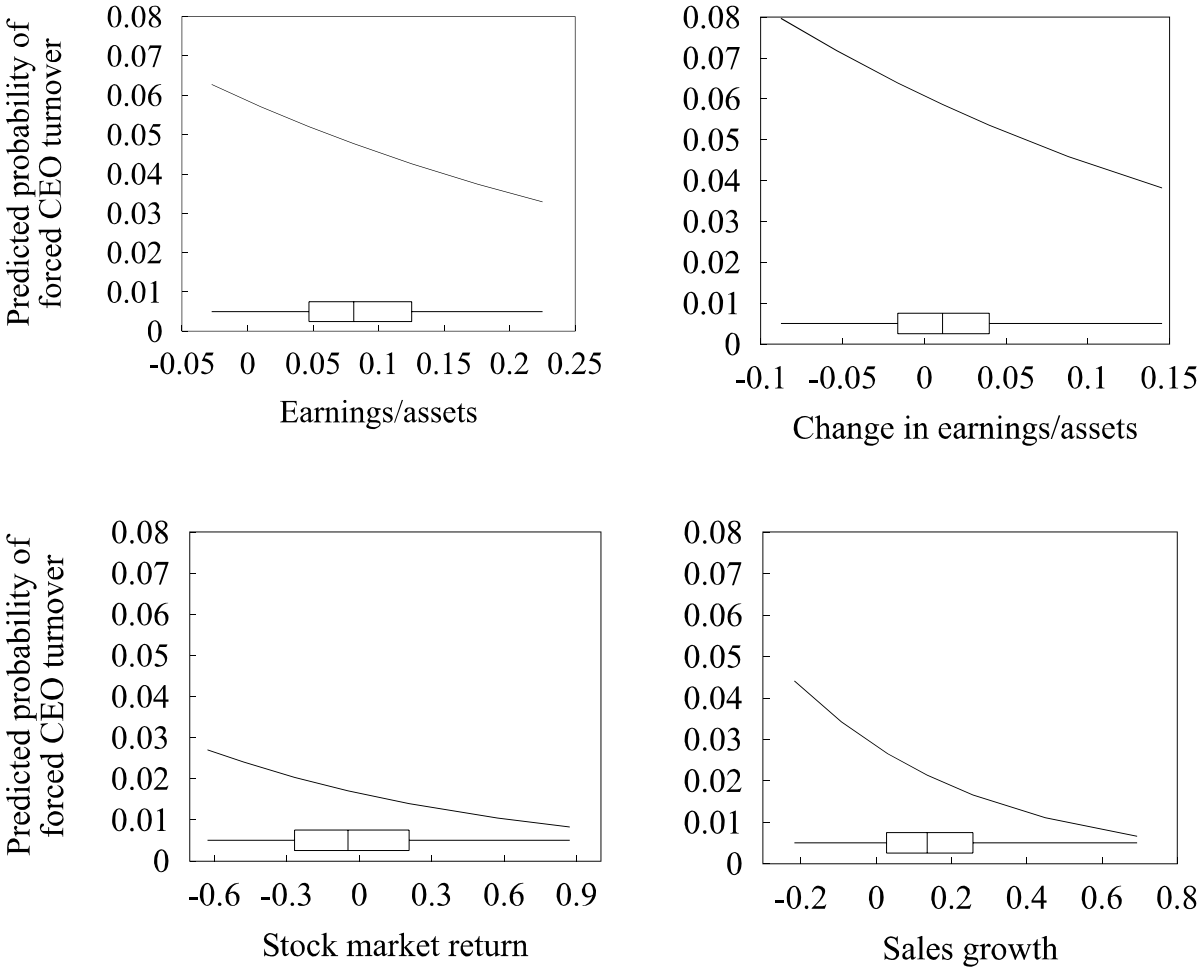

Figure 2. Sensitivity of CEO turnover to firm performance in emerging markets and the United States.

For emerging markets (solid line) and the United States (dashed line), the graphs show the predicted probability of CEO turnover as a function of firm performance. The predictions for emerging markets use the logit regressions reported in Table 4; those for the United States use the linear regressions reported in Table 2, column 3 of Kaplan (1994).